

WHAT IS CLAIMED IS:

1. A macroporous manganese oxide material comprising the composition represented by the following Chemical Formula 1, wherein calcium and strontium are doped in lanthanum sites, and having 3D-ordered nano-sized pores:



wherein $0.25 < x < 0.35$ and $0 < y \leq 0.35$.

2. A method of preparing the macroporous ferromagnetic manganese oxide material comprising the steps of: aligning polymer colloidal particles with nanometer size well in 3D, infiltrating a solution of a precursor having the composition represented by the following Chemical Formula 1 into interstices of the colloidal template, and heat-treating the same in an oxygen atmosphere:



wherein $0.25 < x < 0.35$ and $0 < y \leq 0.35$.

3. The method of preparing the macroporous ferromagnetic manganese oxide material according to Claim 2, wherein the precursor compounds used are $\text{La}(\text{CH}_3\text{CO}_2)_3 \cdot \text{H}_2\text{O}$, $\text{Ca}(\text{CH}_3\text{CO}_2)_2 \cdot \text{H}_2\text{O}$, $\text{Sr}(\text{CH}_3\text{COCHCOCH}_3)_2$ and $\text{Mn}(\text{CH}_3\text{CO}_2)_2 \cdot 4\text{H}_2\text{O}$.

4. The method of preparing the macroporous ferromagnetic manganese oxide

material according to Claim 2 or Claim 3, wherein the concentration of said precursor solution is 0.06 to 0.20 M.

5. The method of preparing the macroporous ferromagnetic manganese oxide material according to Claim 2, wherein said organic polymer is polymethylmethacrylate.

6. The method of preparing the macroporous ferromagnetic manganese oxide material according to Claim 2, wherein said heat treatment is carried out at 700 to 800 °C.